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(54) **DEVICE FOR RECEIVING BROADCASTING PROGRAM AND METHOD FOR DISPLAYING
FAVORITE CHANNEL**

EINRICHTUNG ZUM EMPFANGEN EINES AUSSTRAHLUNGSPROGRAMMS UND VERFAHREN
ZUM ANZEIGEN EINES FAVORITENKANALS

DISPOSITIF POUR LA RÉCEPTION D'UN PROGRAMME DE RADIODIFFUSION ET PROCÉDÉ DE
PRÉSENTATION D'UNE CHAÎNE FAVORITE

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Description

Technical Field

[0001] The present invention relates to a device for receiving broadcasting programs. More specifically, the present invention relates to a device for receiving broadcasting programs which a user can register with a favorite channel list after viewing for a predetermined time period, and a method for displaying a favorite channel by using the same.

Background Art

[0002] Recently, accelerated digital broadcasting enables high definition and high quality sound broadcasting to start through a satellite, terrestrial and cable broadcasting system. Compared with a conventional analog television, a digital television may provide various additional services as well as high definition and high quality sound.

[0003] Such the digital television compresses high definition/high quality audio and video data (A/V data) by using A/V compression technology of MPEG-2 and AC-3 and transmits the compressed A/V to a user via a conventional satellite/terrestrial/cable band by using QPSK/VSB/QAM. As a result, various services can be supplied to a single channel.

[0004] A SD television may provide more than four channels of the terrestrial broadcasting with a conventional single channel and a HD television may provide one channel of the terrestrial broadcasting. Together with that, a digital television may transmit auxiliary information with A/V to provide various services. Thus, a kind of service such as a program guide for added channels may be supplied to the user.

[0005] Watching TV, the user may see information of the above program guide such as program titles, times, story lines and formats on a TV screen, which can be typically read on newspapers.

[0006] Moreover, because of the technology of A/V compression and the technology of transmission and compression, more channels can be broadcasted in the digital TV than in the analog TV. As a result, users should spend quite a time on finding channels that they want to see among the added channels.

[0007] As shown in FIG. 1, if the user registers only a favorite channel to a TV 10 and a key signal of a favorite channel is inputted via a user interface, a favorite channel list 30 set by the user is displayed in some portion of a screen 20 which is displaying a TV program such that the user may select the favorite channel conveniently.

Disclosure of Invention

Technical Problem

[0008] However, according to the conventional favorite

channel list, only the channels set by the user as favorite ones are listed and supplied on the screen. This causes inconvenience in that the user should register the favorite channel every time.

[0009] Moreover, only channel numbers of the favorite channels set by the user are displayed. As a result, the user cannot recognize which program is broadcasted on the corresponding favorite channel. To recognize that, the user should change the channel into the corresponding favorite channel and this is inconvenient.

Technical Solution

[0010] To solve the problems, a method for displaying a favorite channel in a device for receiving a broadcasting program is proposed in accordance with claim 1.

[0011] Embodiments of the method are further defined in claims 2-7.

[0012] A device for receiving a broadcasting program according to the present invention is defined in claim 8.

[0013] Embodiments are further mentioned in claims 9-15.

Advantageous Effects

[0014] The present invention has following advantageous effects.

[0015] If a channel change signal or a power off signal is received according to the device for receiving a broadcasting program, a viewing time of a program viewed by a user is detected. If the detected viewing time is more than a predetermined time period, the program is automatically registered with a favorite channel list.

[0016] Furthermore, detailed information of a specific program selected by the user from a favorite channel list is displayed together with information of the other program broadcasting at the same time as the selected program. The user may change a present channel into another channel selected from the favorite channel list or delete the selected program.

Brief Description of the Drawings

[0017] The accompanying drawings, which are included to provide further understanding of the disclosure and are incorporated in and constitute a part of this application, illustrate embodiments of the disclosure and together with the description serve to explain the principle of the disclosure.

[0018] In the drawings:

FIG. 1 is a diagram illustrating a screen of a conventional TV, with a favorite channel menu;

FIG. 2 is a block view schematically illustrating a configuration of a broadcasting receiver according to an exemplary embodiment;

FIG. 3 is a flow chart illustrating a process of registering a broadcasting program to a favorite channel

list according to the embodiment;

FIG. 4 is a flow chart illustrating a process of providing information of the registered program with the favorite channel list according to the embodiment; and

FIG. 5 is a diagram of a screen illustrating the favorite channel list according to the embodiment.

Best Mode for Carrying Out the Invention

[0019] Reference will now be made in detail to the specific embodiments of the present invention, examples of which are illustrated in the accompanying drawings. Wherever possible, the same reference numbers will be used throughout the drawings to refer to the same or like parts.

[0020] In reference to the drawings, a device for receiving a broadcasting program according to an exemplary embodiment and a method for displaying a favorite channel by using the same will be described.

[0021] FIG. 2 is a block view schematically illustrating a configuration of the device for receiving a broadcasting program (hereinafter, a broadcasting receiver).

[0022] As shown in FIG. 2, a broadcasting receiver according to an exemplary embodiment is a TV that receives broadcasting programs from broadcasting stations. The TV includes a control unit 102, a user interface 104, a memory unit 106, a tuner 100, a TS decoder 108, an NT decoder 114, a program viewing time detection unit 116 and an audio/video (A/V) processing unit 120. The control unit 102 generally controls the TV. A user inputs a channel change signal or a power on/off signal via the user interface 104. In the memory unit 106 are memorized a favorite program viewing standard time set by the user, information of the channel viewing time and information of the channels registered as favorite channels. The tuner 100 performs tuning of broadcasting channels in accordance with the control of the control unit 102. The TS decoder 108 processes a digital broadcasting signal and the NT decoder 114 processes an analog broadcasting signal. The program viewing time detection unit 116 detects the viewing time of the program selected and viewed by the user. The A/V processing unit 120 processes broadcasting data provided by the digital or analog signal to be outputted via a speaker 122 and a display 124.

[0023] The control unit 102 controls the TV generally as mentioned above. Specifically, if a channel change signal or a power control signal is inputted via the user interface 104 according to the embodiment, the control unit 102 determines whether a program broadcasted at the present is viewed for more than the favorite program viewing standard time and it controls the program at the present to be registered with a favorite channel list based on the result of the determination.

[0024] In addition, if the signal inputted via the user interface 104 is a power off signal and the total viewing time of the program at the present is less than the favorite

program viewing standard time, the control unit 102 deletes information of the program viewing time at the present which is memorized in the memory unit 106.

[0025] If a signal of requesting to display the list of programs stored in the memory unit 106 as favorite program, the control unit 102 displays the information of the program viewed at the present or the information of plural favorite channel programs broadcasted on the other channels at the present.

[0026] At this time, if a specific program is selected from the favorite channel list by the user, detail information of the selected broadcasting program is displayed. Hence, if a signal of channel change to the selected channel broadcasting the corresponding program is inputted and if a signal of deleting the selected program is inputted, the selected program is deleted from the favorite channel list.

[0027] The user interface 104 transmits to the control unit 102 various kinds of command signals or information that are inputted via a keypad or remote control by the user. Especially, according to this embodiment, the user interface 104 transmits to the control unit 102 a signal of selecting a specific program from the favorite channel list, a signal of changing a channel to the selected program or a signal of deleting the selected program.

[0028] The memory unit 106 stores various pieces of information including a system program of the control unit 102. In addition, the favorite program viewing standard time preset by the user, the information of the program viewed time and the information of plural channels registered as favorite channels are memorized in the memory unit 106.

[0029] The tuner 100 tunes the channels controlled by the control unit 102 out of broadcasting data inputted via the terrestrial or cable. Thus, the tuner 100 transmits digital signals received via the tuned channels to the TS decoder 108 for processing a digital broadcasting signal and analog signals received via the tuned channels to the NT decoder 114 for processing an analog signal.

[0030] Here, the tuner 100 receives a broadcasting program selected at the present and displays the program on the screen.

[0031] The TS decoder 108 decodes the digital signal supplied by the tuner 100 and it converts the digital signal into an A/V stream or a data stream to transmit the streams to a first switching unit 110.

[0032] The first switching unit 110 processes the A/V stream and the data stream into a broadcasting signal in accordance with the control of the control unit 102. Hence, the first switching unit 110 transmits the processed signal to the A/V processing unit 120 to output the broadcasting. In addition, the first switching unit 110 transmits auxiliary data included in the broadcasting program received via the tuner 100 to the program viewing time detecting unit 116.

[0033] A second switching unit 112 is further provided. The second switching unit 112 receives the analog broadcasting signal from the tuner 100 and an external

input signal. Hence, the second switching unit 112 selects and transmits either of the two signals to the NT (STSC) decoder 114 in accordance with the control of the control unit 102.

[0034] The NT (NTSC) decoder 114 for processing the analog broadcasting signal receives the analog broadcasting signal or the external input signal from the second switching unit 112 to decode it into an audio and video data. Especially, in this embodiment, the NT decoder 114 transmits the auxiliary data included in the broadcasting program received from the tuner 100 to the program viewing time detection unit 116 in accordance with the control of the control unit 102.

[0035] The program viewing time detection unit 116 detects the total broadcasting time of the corresponding program and the viewing time of the corresponding program viewed by the user from the auxiliary data of the program received from the tuner 100. As a result, if the channel change signal or the power control signal is inputted by the user, the program viewing time detection unit 116 transmits either of the two signals to the control unit 102.

[0036] At this time, the control unit 102 determines whether the corresponding program is viewed as long as the favorite program viewing standard time, that is, whether the program is viewed for more than the preset favorite program viewing standard time out of the total program broadcasting time by using the information of the corresponding program transmitted by the program viewing time detection unit 116. Based on the result of the determination, the control unit 102 automatically registers the program viewed for more than the favorite program viewing standard time with the favorite channel list.

[0037] The A/V processing unit 120 processes the audio data and the video data of the program received from the first switching unit 112 such that the processed audio data is outputted to the speaker 122 and the video data is outputted to the display unit 124. In addition, the A/V processing unit 120 mixes an OSD data provided by the control unit 102 with the video data and it transmits the mixed data to the display unit 124.

[0038] Here, the OSD data displayed on the screen of the broadcasting receiver is the favorite channel list which is displayed at a predetermined area of the screen in a block type at a user's request. Such the favorite channel list is configured of a bar type including titles and broadcasting times of programs.

[0039] In addition, a specific program selected by the user from the favorite channel list is highlighted and detailed information of the selected program, that is, the highlighted program is displayed adjacent to the list of the programs.

[0040] In reference to FIGS. 3 to 5, a method for displaying a favorite channel according to an exemplary embodiment that is applicable to the device for automatically listing the favorite channels as mentioned above will be described.

[0041] FIG. 3 is a flow chart illustrating a process of

registering a broadcasting program to the favorite channel list according to an exemplary embodiment.

[0042] As shown in FIG. 3, the broadcasting receiver receives a program selected by the user from the tuner 100 and it displays the selected program on the screen. Here, it is checked whether a key signal corresponding to a channel change signal or a power off signal is inputted by the user (S100).

[0043] Hence, if the key signal is inputted by the user, it is determined whether the inputted key signal is the channel change one (S110). If the key signal is the channel change signal, the program viewing time detection unit 116 transmits to the control unit 102 the total broadcasting time of the program viewed at the present and the total viewing time of the corresponding program by using the auxiliary information included in the received broadcasting signal.

[0044] Then, the control unit 102 stores the information of the program viewing time viewed at the present in the memory unit 106 or the control unit 102 updates the total viewing time in the memory unit 106 if information of the program at the present is already stored in the memory unit 106 (S120).

[0045] After that, it is determined whether the total viewing time of the corresponding program stored in the memory unit 106 is longer than the favorite program viewing standard time preset by the user (S150).

[0046] Based on the result of the determination, if the total viewing time of the program is over the favorite program viewing standard time preset by the user, the control unit 102 automatically registers and stores the corresponding program with and in the favorite channel list (S160).

[0047] If the total viewing time of the corresponding program is less than the favorite program viewing standard time, the control unit 102 identifies with the power off signal of the broadcasting receiver is inputted (S170).

[0048] Based on the result of the identification, if the power off signal is not inputted, the control unit 102 repeatedly updates the viewing time of the corresponding program in the memory unit 106 and it performs continuously S120 to S180 until the power off signal is inputted.

[0049] In contrast, if the power off signal is inputted in S170, it means that the power off signal is inputted in a state of the corresponding program being viewed for less than a predetermined time period. As a result, the control unit 102 deletes the information of the program viewed at the present together with the updated time information of the corresponding program stored in the memory unit 106, that is, the total viewing time (S190).

[0050] In the meantime, if the key signal inputted by the user in S110 is not the channel change signal, the control unit 102 determines whether the inputted key signal is the power off signal (S130).

[0051] Based on the result of the determination, if the key signal inputted by the user is the power off signal, the control unit 102 controls the program viewing time detection unit 116 and the program viewing time detec-

tion unit 116 transmits to the control unit 102 the total broadcasting time of the program viewed at the present and the total viewing time of the corresponding program by using the auxiliary information included in the broadcasting signal (S140).

[0052] Then, the control unit 102 determines whether the total viewing time of the program at the present stored in the memory unit 106 is more than the favorite program viewing standard time preset by the user (S150).

[0053] Based on the result of the determination, if the total viewing time stored in the memory unit 106 is more than the preset favorite program viewing standard time, the control unit 102 automatically registers the corresponding program with the favorite channel list (S160).

[0054] In contrast, if the total viewing time stored in the memory unit 106 is less than the favorite program viewing standard time preset by the user, the control unit 102 determines that the power off signal is inputted and the control unit 102 deletes the information of the corresponding program together with the updated time information of the corresponding program, that is, the information of the total viewing time of the corresponding program (S190).

[0055] FIG. 4 is a diagram illustrating a process of displaying the information of the program registered with the favorite channel list through the process of FIG. 3. In reference to FIG. 4, the process will be described in detail.

[0056] FIG. 4 is a flow chart illustrating a process of providing the program registered to the favorite channel list according to the embodiment.

[0057] As shown in FIG. 4, if the user inputs a favorite program list key for requesting a favorite channel list via the user interface 104 (S200), the control unit 102 detects the information of the program viewed by the user at the present and the information of the programs stored in the favorite channel list. Then, the control unit 102 controls the program viewing time detection unit 116 to detect the information of a broadcasting time status for each program registered with the detected favorite channel list (S210).

[0058] At this time, the program viewing detection unit 116 transmits the information of the plural programs stored in the favorite channel list to the control unit 102 by using the electronic program guide. The control unit 102 detects the broadcasting time status for each program at the present based on the detected program information, corresponding to the present time.

[0059] Hence, the information of the plural programs registered with the favorite channel list is displayed at a predetermined area of screen in a block based on an OSD data. Simultaneously, an OSD of the broadcasting time status information for each program is generated and it is displayed in a bar type together with the information of the corresponding program (S220).

[0060] It is checked whether an area of a specific program at the OSD data for displaying the favorite channel list is selected by the user (S230).

[0061] Here, if the area of the specific program is se-

lected from the OSD data of the favorite channel list by the user, the control unit 102 highlights the block of the OSD for the selected program and detailed information of the selected program is provided with a predetermined area of the screen (S240).

[0062] If a specific program is not selected by the user, the control unit 102 provides detailed information of the program viewed at the present by the user (S250).

[0063] Continuously, it is identified whether a confirmation key signal for the program selected and highlighted by the user is inputted (S260).

[0064] If the confirmation key for the selected and highlighted program is inputted, the control unit 102 changes the present channel into a channel broadcasting the selected program, corresponding to the key signal.

[0065] If a key signal for deleting the selected program is inputted, the control unit 102 deletes the OSD data of the selected program corresponding to the key signal and deletes the information of that program from the favorite channel list (S270).

[0066] FIG. 5 is a diagram illustrating a screen displaying the favorite channel list according to the embodiment.

[0067] In reference to FIG. 5, a signal for requesting the favorite channel list is inputted by the user and the favorite channel list is displayed at a predetermined area of the screen.

[0068] The programs of the OSD data 210 from the favorite channel list of the broadcasting receiver 200 are four programs 214 including 'KBS (Korea Broadcasting Station) News', 'Unstoppable', 'MBC(Munwha Broadcasting Center) News' and 'love' that are viewed at the present and broadcasted on other channels at the same time. A bar 216 for displaying the broadcasting time status for each program is displayed under each title of the programs.

[0069] If the user selects a specific program from the OSD 210 of the favorite channel list, the control unit 102 highlights a corresponding block of the selected program and displays detailed information 212 of the selected program in an upper area of the OSD.

[0070] Here, if a confirmation key signal of the highlighted program is inputted, the control unit 102 changes the channel at the present into a channel corresponding to the highlighted program.

[0071] In the meantime, if the user inputs a delete key signal of the highlighted program, the control unit 102 deletes the OSD data of the selected program and deletes the selected program from the favorite channel list simultaneously.

[0072] It will be apparent to those skilled in the art that various modifications and variations can be made in the present invention without departing from the spirit or scope of the invention. Thus, it is intended that the present invention cover the modifications and variations of this invention provided they come within the scope of the appended claims and their equivalents.

Industrial Applicability

[0073] The present invention has an industrial applicability as follows.

[0074] If a channel change signal or a power off signal is received according to the device for receiving a broadcasting program, a viewing time of a program viewed by a user is detected. If the detected viewing time is more than a predetermined time period, the program is automatically registered with a favorite channel list.

[0075] Furthermore, detailed information of a specific program selected by the user from a favorite channel list is displayed together with information of the other program broadcasting at the same time as the selected program. The user may change a present channel into another channel selected from the favorite channel list or delete the selected program.

Claims

1. A method for displaying a favorite channel in a device for receiving a broadcasting program, the method comprising:

presetting a favorite program viewing standard time;
 identifying whether a key signal is inputted by a user, displaying a broadcasting program received from a selected channel;
 detecting a viewing time of the program based on the inputted key signal;
 comparing the detected program viewing time with the preset viewing standard time;
 registering a specific channel of the broadcasting program with a favorite channel list in a memory based on the result of the comparison;
 generating on-screen display, OSD, data (212) comprising at least one additional information, wherein the at least one additional information (214, 216) identifies each of current programs from each of the favorite channel; and
 displaying the OSD data while displaying the broadcast program received from the selected channel.

2. The method as claimed in claim 1, wherein the key signal inputted by the user is a channel change signal or a power off signal.
3. The method as claimed in claim 2, wherein if the power off signal is inputted, a total viewing time of the program broadcasted at the present is detected.
4. The method as claimed in claim 1, wherein if the detected viewing time of the program is more than the preset viewing standard time based on the result of the comparison, the program is registered with the

favorite program list.

5. The method as claimed in claim 1, wherein if the detected viewing time of the program is less than the preset viewing standard time based on the result of the comparison, the detected viewing time of the program is deleted.
6. The method as claimed in claim 1, wherein said additional information comprises broadcasting time status information for each program, the broadcasting time status information being displayed in a bar type, differentiating a color of a broadcasted time area from a color of a to-be-broadcasted time area.
7. The method as claimed in claim 1, wherein if the user selects a specific program, detailed information of selected program is provided.
8. A device for receiving a broadcasting program, the device comprising:
 - a tuner (100) for receiving a broadcasting program of a selected channel at the present;
 - a program viewing time detection unit (116) for detecting a total viewing time of the received program;
 - a memory unit (106) for storing the detected viewing time of the program, a favorite program viewing standard time preset by a user and a favorite channel list;
 - a user interface (104) for receiving a key signal from the user;
 - a control unit (102) for comparing the total viewing time of the received program with the preset favorite program viewing standard time if the key signal is inputted via the user interface, the control unit for registering a specific channel of the received program with the favorite channel list or deleting the viewing time of the corresponding program stored in the memory unit based on the result of the comparison;
 - an on-screen display, OSD, generation unit (118) for generating OSD data (212) comprising at least one additional information, wherein the at least one additional information (214, 216) identifies each of current programs from each of the favorite channel; and
 - a display unit (124) for displaying the OSD data while displaying the broadcast program received from the selected channel.
9. The device as claimed in claim 8, the key signal inputted from the user interface (104) is a channel change signal or a power off signal.
10. The device as claimed in claim 8, wherein if the power off signal is inputted by the user, the program view-

ing time detection unit (116) detects a total viewing time of the received program at the present.

11. The device as claimed in claim 8, wherein the memory unit (106) updates the detected viewing time information of the program continuously until the power off signal is inputted. 5
12. The device as claimed in claim 8, wherein if the detected program viewing time is more than the preset viewing standard time based on the result of the comparison, the control unit (102) registers the program at the present with the favorite channel list. 10
13. The device as claimed in claim 8, wherein if the detected program viewing time is less than the preset viewing standard time based on the result of the comparison, the control unit (102) deletes the detected program viewing time. 15
14. The device as claimed in claim 8, wherein said additional information comprises broadcasting time status information displayed in a bar type, differentiating a color of a broadcasted time area from a color of a to-be-broadcasted time area. 20
15. The device as claimed in claim 8, wherein if the user selects a specific program, the display unit (124) displays detailed information of the selected program. 25

Patentansprüche

1. Verfahren zum Darstellen eines Favoritenkanals in einer Vorrichtung zum Empfangen eines Übertragungsprogramms, mit den Schritten: 35

Voreinstellen einer Favoritenprogrammbe-
trachtungsstandardzeit;
Identifizieren, ob ein Tastensignal durch einen
Benutzer eingegeben wird, während ein über ei-
nen ausgewählten Kanal empfangenes Über-
tragungsprogramm dargestellt wird;
Erfassen einer Betrachtungszeit des Pro-
gramms basierend auf dem eingegebenen Tas-
tensignal;
Vergleichen der erfassten Programmbetrach-
tungszeit mit der voreingestellten Betrachtungs-
standardzeit;
Speichern eines spezifischen Kanals des Über-
tragungsprogramms in einer Favoritenpro-
grammliste in einem Speicher basierend auf
dem Vergleichsergebnis;
Erzeugen von OSD-, On-Screen-Display, Daten
(212), die mindestens eine Zusatzinformation
enthalten, wobei die mindestens eine Zusatzin-
formation (214, 216) jedes von aktuellen Pro-
grammen jedes der Favoritenkanäle identifi- 50

ziert; und

Darstellen der OSD-Daten, während das über
den ausgewählten Kanal empfangene Übertra-
gungsprogramm dargestellt wird.

2. Verfahren nach Anspruch 1, wobei das durch den Benutzer eingegebene Tastensignal ein Kanalumschaltensignal oder ein Abschaltensignal ist.
3. Verfahren nach Anspruch 2, wobei, wenn das Abschaltensignal eingegeben wird, eine Gesamtbetrachtungszeit des aktuell ausgestrahlten Programms erfasst wird.
4. Verfahren nach Anspruch 1, wobei, wenn basierend auf dem Vergleichsergebnis die erfasste Betrachtungszeit des Programms länger ist als die voreingestellte Betrachtungsstandardzeit, das Programm in der Favoritenprogrammliste gespeichert wird.
5. Verfahren nach Anspruch 1, wobei, wenn basierend auf dem Vergleichsergebnis die erfasste Betrachtungszeit des Programms kürzer ist als die voreingestellte Betrachtungsstandardzeit, die erfasste Betrachtungszeit des Programms gelöscht wird.
6. Verfahren nach Anspruch 1, wobei die Zusatzinformation Sendezeitstatusinformation für jedes Programm enthält, wobei die Sendezeitstatusinformation in der Form eines Strichcodes dargestellt wird, bei dem die Farbe eines gesendeten Zeitabschnitts von der Farbe eines noch zu sendenden Zeitabschnitts verschieden ist.
7. Verfahren nach Anspruch 1, wobei, wenn der Benutzer ein bestimmtes Programm auswählt, Detailinformation für das ausgewählte Programm bereitgestellt wird.
8. Vorrichtung zum Empfangen eines Übertragungsprogramms, wobei die Vorrichtung aufweist:

einen Tuner (100) zum Empfangen eines Übertragungsprogramms eines aktuell ausgewählten Kanals;
eine Programmbetrachtungszeiterfassungseinheit (116) zum Erfassen einer Gesamtbetrachtungszeit des empfangenen Programms;
eine Speichereinheit (106) zum Speichern der erfassten Betrachtungszeit des Programms, einer durch einen Benutzer voreingestellten Favoritenprogrammbe-
trachtungsstandardzeit und einer Favoritenkanalliste;
eine Benutzerschnittstelle (104) zum Empfangen eines Tastensignals vom Benutzer;
eine Steuereinheit (102) zum Vergleichen der Gesamtbetrachtungszeit des empfangenen Programms mit der voreingestellten 55

- Favoritenprogrammbeobachtungsstandardzeit, wenn das Tastensignal über die Benutzerschnittstelle eingegeben wird, wobei die Steuereinheit basierend auf dem Vergleichsergebnis einen spezifischen Kanal des empfangenen Programms in der Favoritenprogrammliste speichert oder die im Speicher gespeicherte Betrachtungszeit des entsprechenden Programms löscht; eine OSD-, On-Screen-Display, Erzeugungseinheit (118) zum Erzeugen von OSD-Daten (212), die mindestens eine Zusatzinformation enthalten, wobei die mindestens eine Zusatzinformation (214, 216) jedes von aktuellen Programmen von jedem der Favoritenkanäle identifiziert; und eine Displayeinheit (124) zum Darstellen der OSD-Daten, während das über den ausgewählten Kanal empfangene Übertragungsprogramm dargestellt wird.
9. Vorrichtung nach Anspruch 8, wobei das über die Benutzerschnittstelle (104) eingegebene Tastensignal ein Kanalschaltensignal oder ein Abschaltensignal ist.
10. Vorrichtung nach Anspruch 8, wobei, wenn das Abschaltensignal durch den Benutzer eingegeben wird, die Programmbetrachtungszeiterfassungseinheit (116) eine Gesamtbetrachtungszeit des aktuell empfangenen Programms erfasst.
11. Vorrichtung nach Anspruch 8, wobei die Speichereinheit (106) die erfasste Betrachtungszeitinformation des Programms fortlaufend aktualisiert, bis das Abschaltensignal eingegeben wird.
12. Vorrichtung nach Anspruch 8, wobei, wenn basierend auf dem Vergleichsergebnis die erfasste Programmbetrachtungszeit länger ist als die voreingestellte Betrachtungsstandardzeit, die Steuereinheit (102) das aktuelle Programm in der Favoritenkanalliste speichert.
13. Vorrichtung nach Anspruch 8, wobei, wenn basierend auf dem Vergleichsergebnis die erfasste Programmbetrachtungszeit kürzer ist als die voreingestellte Betrachtungsstandardzeit, die Steuereinheit die erfasste Programmbetrachtungszeit löscht.
14. Vorrichtung nach Anspruch 8, wobei die Zusatzinformation Sendezeitstatusinformation enthält, die in der Form eines Strichcodes dargestellt wird, bei dem die Farbe eines gesendeten Zeitabschnitts von der Farbe eines noch zu sendenden Zeitabschnitts verschieden ist.
15. Vorrichtung nach Anspruch 8, wobei, wenn der Be-

nutzer ein bestimmtes Programm auswählt, die Displayeinheit (124) Detailinformation für das ausgewählte Programm darstellt.

Revendications

- Procédé d'affichage d'une chaîne favorite dans un dispositif de réception d'un programme de diffusion, le procédé comprenant :
 - prérégler un temps standard de visualisation de programme favori ;
 - identifier si un signal de touche est entré par un utilisateur, afficher un programme de diffusion reçu depuis une chaîne sélectionnée ;
 - détecter un temps de visualisation du programme sur la base du signal de touche entré ;
 - comparer le temps de visualisation du programme détecté au temps standard de visualisation préréglé ;
 - enregistrer une chaîne spécifique du programme de diffusion dans une liste de chaînes favorites dans une mémoire sur la base du résultat de la comparaison ;
 - générer des données (212) d'affichage sur écran, OSD (« on-screen display »), comprenant au moins une information supplémentaire, l'au moins une information supplémentaire (214, 216) identifiant chacun des programmes courants de chacune de la chaîne favorite ; et
 - afficher les données OSD pendant l'affichage du programme de diffusion reçu depuis la chaîne sélectionnée.
- Procédé selon la revendication 1, dans lequel le signal de touche entré par l'utilisateur est un signal de changement de chaîne ou un signal de mise hors tension.
- Procédé selon la revendication 2, dans lequel si le signal de mise hors tension est entré, un temps de visualisation total du programme actuellement diffusé est détecté.
- Procédé selon la revendication 1, dans lequel si le temps de visualisation détecté du programme est plus que le temps standard de visualisation préréglé sur la base du résultat de la comparaison, le programme est enregistré dans la liste de programmes favoris.
- Procédé selon la revendication 1, dans lequel si le temps de visualisation détecté du programme est moins que le temps standard de visualisation préréglé sur la base du résultat de la comparaison, le temps de visualisation détecté du programme est effacé.

6. Procédé selon la revendication 1, dans lequel ladite information supplémentaire comprend de l'information d'état de temps de diffusion pour chaque programme, les informations d'état de temps de diffusion étant affichées sous forme de barre, différenciant une couleur d'une plage de temps déjà diffusé d'une couleur d'une plage de temps à diffuser.

7. Procédé selon la revendication 1, dans lequel si l'utilisateur sélectionne un programme spécifique, de l'information détaillée du programme sélectionné est fournie.

8. Dispositif de réception d'un programme de diffusion, le dispositif comprenant :

un tuner (100) pour recevoir un programme de diffusion d'une chaîne actuellement sélectionnée ;

une unité de détection de temps de visualisation de programme (116) pour détecter un temps total de visualisation du programme reçu ;

une unité de mémoire (106) pour stocker le temps de visualisation détecté du programme, un temps standard de visualisation de programme favori préregistré par un utilisateur et une liste de chaînes favorites ;

une interface utilisateur (104) pour recevoir un signal de touche de l'utilisateur ;

une unité de commande (102) pour comparer le temps de visualisation total du programme reçu au temps standard de visualisation préregistré d'un programme favori si le signal de touche est entré via l'interface utilisateur, l'unité de commande enregistrant une chaîne spécifique du programme reçu dans la liste de chaînes favorites ou effaçant le temps de visualisation du programme correspondant stocké dans l'unité de mémoire sur la base du résultat de la comparaison ;

une unité de génération d'affichage sur écran, OSD (« on-screen display »), (118) pour générer des données OSD (212) comprenant au moins une information supplémentaire, l'au moins une information supplémentaire (214, 216) identifiant chacun des programmes courants de chacune de la chaîne favorite ; et une unité d'affichage (124) pour afficher les données OSD pendant l'affichage du programme de diffusion reçu depuis la chaîne sélectionnée.

9. Dispositif selon la revendication 8, le signal de touche entré depuis l'interface utilisateur (104) est un signal de changement de chaîne ou un signal de mise hors tension.

10. Dispositif selon la revendication 8, dans lequel si le signal de mise hors tension est entré par l'utilisateur,

l'unité de détection de temps de visualisation de programme (116) détecte un temps total de visualisation du programme actuellement reçu.

11. Dispositif selon la revendication 8, dans lequel l'unité de mémoire (106) met à jour continuellement les informations de temps de visualisation détecté du programme jusqu'à ce que le signal de mise hors tension soit entré.

12. Dispositif selon la revendication 8, dans lequel si le temps de visualisation de programme détecté est plus que le temps standard de visualisation préregistré sur la base du résultat de la comparaison, l'unité de commande (102) enregistre le programme actuel dans la liste de chaînes favorites.

13. Dispositif selon la revendication 8, dans lequel si le temps de visualisation de programme détecté est moins que le temps standard de visualisation préregistré sur la base du résultat de la comparaison, l'unité de commande (102) efface le temps de visualisation de programme détecté.

14. Dispositif selon la revendication 8, dans lequel ladite information supplémentaire comprend de l'information d'état de temps de diffusion affichées sous forme de barre, différenciant une couleur d'une plage de temps déjà diffusé d'une couleur d'une plage de temps à diffuser.

15. Dispositif selon la revendication 8, dans lequel si l'utilisateur sélectionne un programme spécifique, l'unité d'affichage (124) affiche de l'information détaillée du programme sélectionné.

FIG. 1

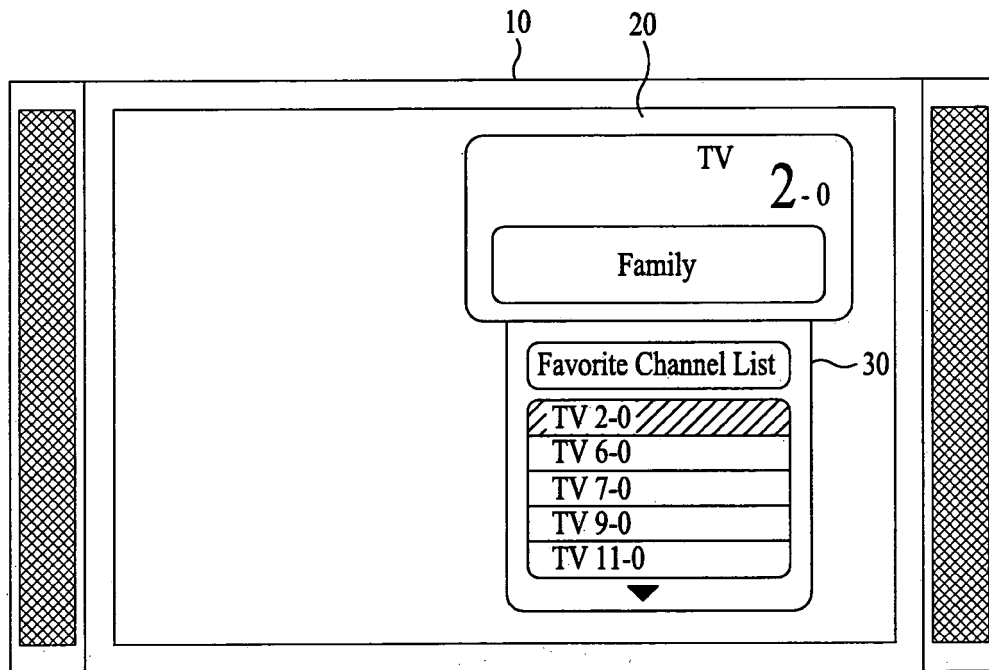


FIG. 2

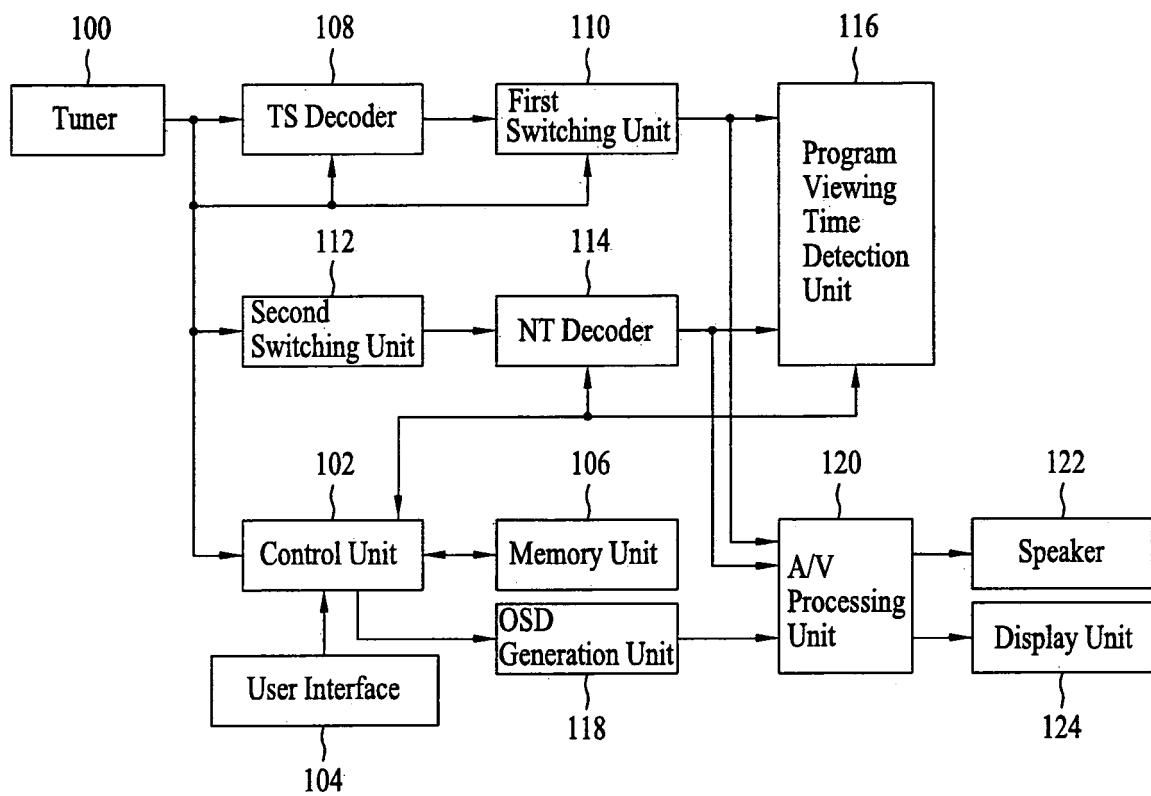


FIG. 3

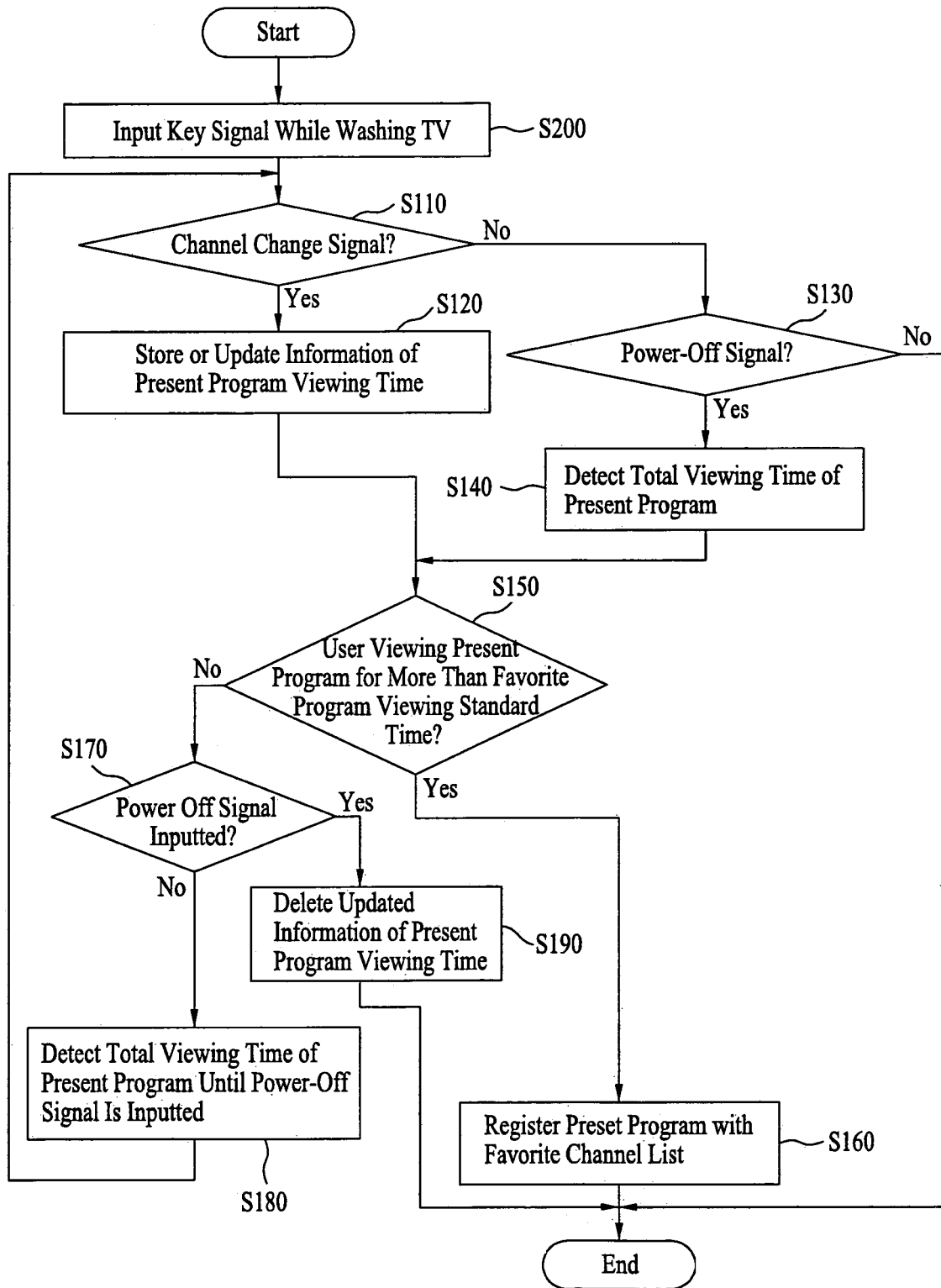


FIG. 4

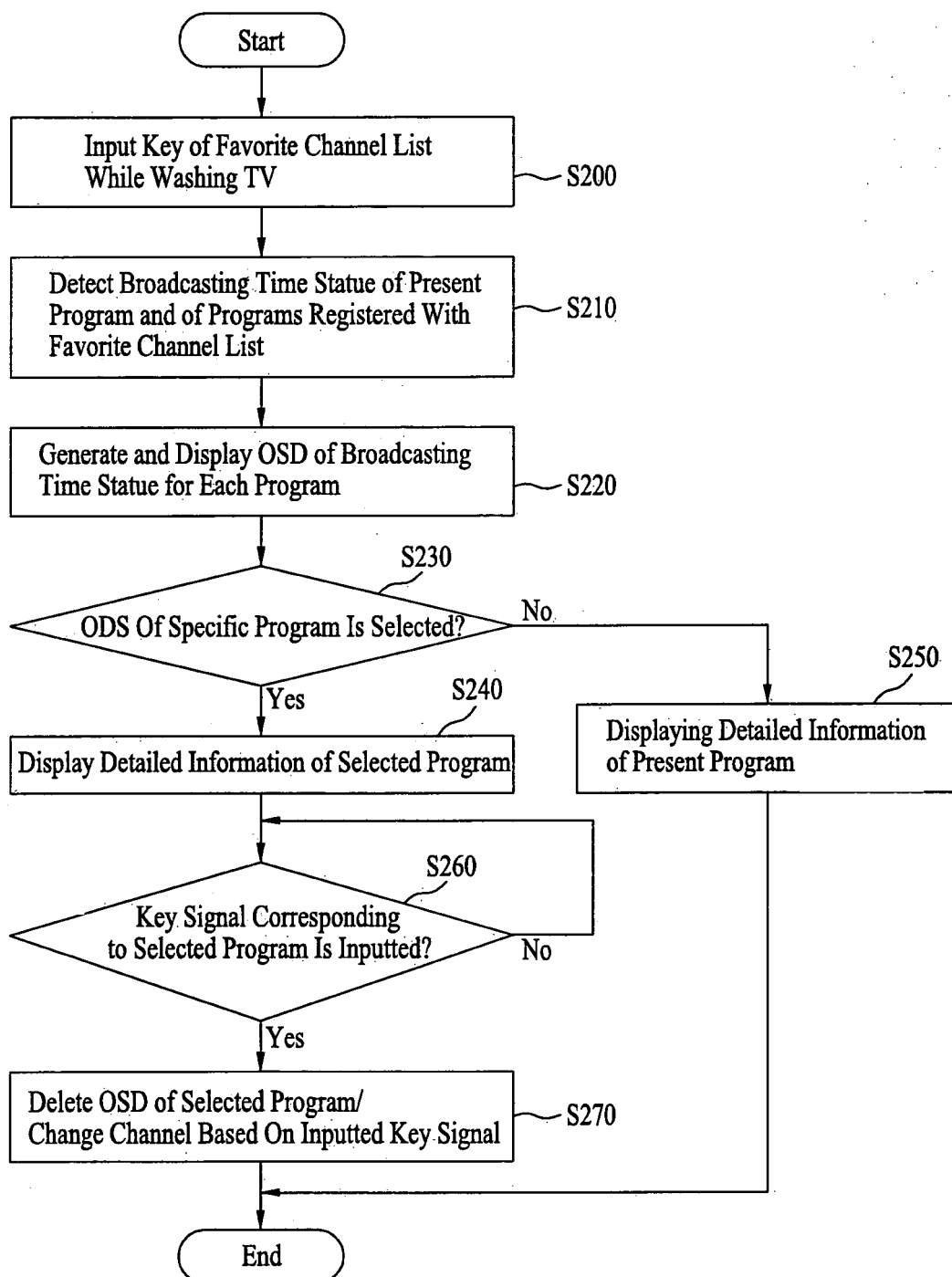


FIG. 5

